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Revue canadienne de physique

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Subject Classification
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Revue canadienne de physique

Classification thématique
Volume 85, 2007

Summary of the Physics and Astronomy Classification Scheme (PACS)[®], as developed by the American Institute of Physics and used with its permission by the *Canadian Journal of Physics*. For a more detailed listing, see <http://publish.aps.org/PACS/>.

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00.00 SUMMARY OF PACS SCHEME

- 01.00 Communication, education, history, and philosophy
- 02.00 Mathematical methods in physics
- 03.00 Quantum mechanics, field theories, and special relativity (see also section 11 General theory of fields and particles)
- 04.00 General relativity and gravitation (see also 95.30.Sf in astronomy). Special relativity, see 03.30.+p
- 05.00 Statistical physics, thermodynamics, and nonlinear dynamical systems (see also 02.50.-r Probability theory, stochastic processes, and statistics)
- 06.00 Metrology, measurements, and laboratory procedures (for laser applications in metrology, see 42.62.Eh)
- 07.00 Instruments, apparatus, and components common to several branches of physics and astronomy

10.00 THE PHYSICS OF ELEMENTARY PARTICLES AND FIELDS

- 11.00 General theory of fields and particles
- 12.00 Specific theories and interaction models; particle systematics
- 13.00 Specific reactions and phenomenology
- 14.00 Properties of specific particles

20.00 NUCLEAR PHYSICS

- 21.00 Nuclear structure
- 23.00 Radioactive decay and in-beam spectroscopy
- 24.00 Nuclear reactions: general
- 25.00 Nuclear reactions: specific reactions
- 26.00 Nuclear astrophysics
- 27.00 Properties of specific nuclei listed by mass ranges
- 28.00 Nuclear engineering and nuclear power studies
- 29.00 Experimental methods and instrumentation for elementary-particle and nuclear physics

30.00 ATOMIC AND MOLECULAR PHYSICS

- 31.00 Electronic structure of atoms and molecules: theory
- 32.00 Atomic properties and interactions with photons
- 33.00 Molecular properties and interactions with photons
- 34.00 Atomic and molecular collision processes and interactions
- 36.00 Exotic atoms and molecules; macromolecules; clusters
- 39.00 Instrumentation and techniques for atomic and molecular physics

40.00 ELECTROMAGNETISM, OPTICS, ACOUSTICS, HEAT TRANSFER, CLASSICAL MECHANICS, AND FLUID MECHANICS

- 41.00 Electromagnetism; electron and ion optics
- 42.00 Optics
- 43.00 Acoustics

- 44.00 Heat transfer
- 45.00 Classical mechanics of discrete systems
- 46.00 Continuum mechanics of solids (see also 83.10.Ff in rheology)
- 47.00 Fluid dynamics
- 50.00 PHYSICS OF GASES, PLASMAS, AND ELECTRIC DISCHARGES**
- 51.00 Physics of gases
- 52.00 Physics of plasmas and electric discharges
- 60.00 CONDENSED MATTER: STRUCTURAL, MECHANICAL AND THERMAL PROPERTIES**
- 61.00 Structure of solids and liquids; crystallography
- 62.00 Mechanical and acoustical properties of condensed matter
- 63.00 Lattice dynamics
- 64.00 Equations of state, phase equilibria, and phase transitions
- 65.00 Thermal properties of condensed matter
- 66.00 Transport properties of condensed matter (nonelectronic)
- 67.00 Quantum fluids and solids; liquid and solid helium
- 68.00 Surfaces and interfaces; thin films and low-dimensional systems (structure and nonelectronic properties)
- 70.00 CONDENSED MATTER: ELECTRONIC STRUCTURE, ELECTRICAL, MAGNETIC, AND OPTICAL PROPERTIES**
- 71.00 Electronic structure of bulk materials
- 72.00 Electronic transport in condensed matter
- 73.00 Electronic structure and electrical properties of surfaces, interfaces, thin films, and low-dimensional structures
- 74.00 Superconductivity
- 75.00 Magnetic properties and materials
- 76.00 Magnetic resonances and relaxations in condensed matter, Mössbauer effect
- 77.00 Dielectrics, piezoelectrics, and ferroelectrics and their properties
- 78.00 Optical properties, condensed-matter spectroscopy and other interactions of radiation and particles with condensed matter
- 79.00 Electron and ion emission by liquids and solids; impact phenomena
- 80.00 INTERDISCIPLINARY PHYSICS AND RELATED AREAS OF SCIENCE AND TECHNOLOGY**
- 81.00 Materials science
- 82.00 Physical chemistry and chemical physics
- 83.00 Rheology
- 84.00 Electronics; radiowave and microwave technology; direct energy conversion and storage
- 85.00 Electronic and magnetic devices; microelectronics
- 87.00 Biological and medical physics
- 89.00 Other areas of applied and interdisciplinary physics
- 90.00 GEOPHYSICS, ASTRONOMY, AND ASTROPHYSICS**
- 91.00 Solid Earth physics
- 92.00 Hydrospheric and atmospheric geophysics
- 93.00 Geophysical observations, instrumentation, and techniques
- 94.00 Aeronomy and magnetospheric physics
- 95.00 Fundamental astronomy and astrophysics; instrumentation, techniques, and astronomical observations
- 96.00 Solar System
- 97.00 Stars
- 98.00 Stellar systems; interstellar medium; galactic and extragalactic objects and systems; the Universe

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